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THE GENESEE FARMER.

SATURDAY, MARCH 26, 1836.

Cultivation of Corn.

Our correspondent at Kingsessing requests information respecting the culture of Indian corn. He writes:—"In order to obtain a crop which I hoped would be a full one, I spread about fifty bushels of lime to the acre, about two years before intending to break up the sod. A few days before ploughing, I spread about twenty large ox-cart loads of manure, which was ploughed in with the lime; then harrowed the ground, and spread ten similar cart loads of street dirt to the acre, and again harrowed the ground. It was then marked with shallow furrows six feet apart, and the corn planted in these furrows at a distance of about six inches in the row from stalk to stalk. This method after careful attention produced only about fifty bushels to the acre. It answers very well upon a light soil, as a crop of corn may be raised, and part of a crop of potatoes between each row of corn. The most common method of planting in this part of the country, is to plant about four or four and a half feet each way. In planting more closely, (that is, allowing to each hill a smaller number of square feet,) if three stalks in a hill will grow and produce good ears on twelve square feet of ground, then I think you must have a kind of corn superior to ours. My object is to obtain information on this subject."

1. The practice of our correspondent in spreading the lime upon the sod so long before breaking it up, is an excellent one, particularly on account of its safety, and especially so where the magnesian or caustic lime is used, as is generally the case in that part of Pennsylvania. Time is thus allowed for it to lose it deleterious or burning qualities.

2. As the manure which is turned under the sod, is so far below the surface, as to be beyond the reach of the roots of the young corn during the early part of the season, it is advisable to manure the surface, according to the practice of our correspondent, in order to advance the young plants rapidly, until they can draw upon the manure below. But if the manure is spread equally over the top of the inverted sod, only a small part of it becomes useful while the corn is small; it is therefore best in this case to manure in the hill, by which an immediate and plentiful supply of nourishment is afforded. It was by this mode, after having manured plentifully the ground, before ploughing that J. W. Brewster of Oneida co., (Gen. Far. vol. 5, page 405,) raised at the rate of *one hundred and five bushels to the acre*, on land considered by experienced farmers to be entirely unfit for the growth of Indian corn. It should however be remembered, that in order that the manure ploughed under may be in the best state for affording nourishment at the time needed, it must be applied unfermented. It should also be borne in mind that this mode of raising corn is only adapted with advantage to light soils, where the roots of the corn may penetrate freely to the manure below; or if made use of on heavier soils, the ploughing must either be more shallow, or the soil must have been rendered porous by frequent manurings in previous years.

3. Planting potatoes between the rows of corn, we look upon as objectionable. As the potatoes are necessarily much shaded by the corn, there will be but an indifferent crop of these; and whatever nourishment they receive from the soil will be at the expense of the corn; indeed the latter crop will be as much injured by them as the same amount of weeds.

4. The varieties of seed, and the distances asunder, are of as much importance as any thing in corn culture; and in fact far more so, when it is considered that good varieties, and proper distances, are attended with little or no more expense or labor, than the contrary. It has been satisfactorily proved that the small northern varieties are much better adapted to cultivation in Pennsylvania than the larger southern kinds. By turning to the 18th page of the present volume of this paper, our correspondent will perceive that the northern kind, (probably the common eight rowed cultivated in this state,) has yielded nearly double the larger southern kind, under similar circumstances. *Yet the northern variety is rejected for the very reason, that, to a reflecting mind, would lead to its adoption*, namely, the smallness of its stalk, which admits so much greater a number of plants to stand on the same ground. On the other hand, the large variety is cultivated for the size of its stalks, the very reason which renders it necessary to plant thinly, and thus cause a diminished crop. Our correspondent plants his corn in drills six feet apart, and the variety he cultivates may require this distance; but the best northern varieties admit of much nearer planting, so that there may be nearly twice as many stalks on an acre. It is probable that if instead of making drills six feet apart, the northern variety had been planted in drills at half that distance asunder, the crop instead of being fifty bushels, would have been nearer a hundred.

From an article on page 72, current volume of the Farmer, it will be seen that when corn was planted in hills two feet and a half apart, and five stalks to a hill, the product was nearly double that when the hills were three feet and a half apart, and three stalks to a hill. It must not however be forgotten, that it is only good and rich soil, that will bear thick planting.

The best variety we are acquainted with is *the Dutton corn.* It is the most productive, and it has the advantage of ripening so early in the season, as always to be beyond the danger of injury by frost, and it enables the farmer to remove the crop in good season for sowing wheat after it in autumn.

Drawing Manure.

It very often happens, that early in spring the weather does not admit of much work being done on the farm, and advantage may frequently be taken of this season to draw out the manure which has collected in cattle yards during winter; and the work will be much facilitated, if, as often occurs, a small depth of snow lies upon the ground.

In order to prevent loss from evaporation and the washing of rain, manure drawn now should be left in heaps, as large as convenience will admit, and not be spread until the day it is to be ploughed under.

Farmers who have fresh manure now on hand, should on no consideration whatever, suffer it to lie unapplied during the summer. The loss from fermentation and other causes has been proved satisfactorily to be at least fifty per cent. Therefore instead of leaving it to waste until autumn, apply it to the corn or potatoe crop now; and the benefit derived from it by this crop will be clear gain. For the most nutritious part, instead of escaping as it would when remaining unapplied, will go directly to the benefit of this crop; and what remains of it by autumn, will be as great in amount, as it would, had it been lying idle; and will beside be much better mixed with the soil.

Another consideration in favor of this practice is, that corn is most benefitted by fresh or unfermented manure; while wheat, which frequently follows corn, admits only of the nourishment of rotted manure; consequently if it is applied in the spring, they both derive the greatest possible benefit from it.

Increasing Plants by Cuttings.

A writer in the last number of the Edinburgh Quarterly Journal of Agriculture says, "It lately occurred to me to try the effect of *water*, with or without bottom heat, *in striking cuttings of herbaceous plants*, or *of the very young wood of shrubs.* The process is one of great curiosity and convenience, and I strongly recommend it to every one. It is interesting to trace the progress of the roots and rootlets, in a transparent medium, from which the subject can be removed to a pot of soil, without injury to the smallest visible fiber or spongeflet. Amazing numbers of plants may be thus easily raised; and what is very gratifying, the water, which with common flower-stalks immersed in it would become unbearably offensive, is, by the *production of roots*, kept sweet for a very long period."

Some of our friends who cultivate the Oleander often find them, when too much shaded, to grow inconveniently or ungracefully tall. The same writer says, "These plants strike freely in water or soil: the latter should be rich loam and leaf mold, the cuttings inserted in sanded holes.*

* This new method of striking cuttings by the same writer, may be found at page 11 of our current volume.

They will succeed in the autumn, if placed in the heat of 60° or 65°; and by this means fine flowering plants, *not higher than twelve inches*, may sometimes be obtained, by taking a short cutting with the germ of the flowers already formed."

Culture of the Grape.

Much has been written on this subject, yet a few short and practical directions on the best mode of obtaining this agreeable fruit, may nevertheless be acceptable.

Propagation.—This is done either by layers or cuttings. *Layers* are made by simply burying in earth at the middle, the youngest and most thrifty shoots; this causes them to root at the joints, and this forms young plants. *Cuttings* may be taken from the vine any time between the commencement and latter part of winter; they are best when the eyes or buds are round and plump, the joints short, and the wood cylindrical; these qualities are only found near the lower part of the shoot; the lowest buds of all, are imperfect, and should be rejected. Cuttings are always to be of last summer's growth. If they are tolerably short jointed, they may be cut to a length of from eight to twelve inches, observing that the upper bud is plump and good. The lower end is to be cut off half an inch below the lower bud, and the upper one, one or two inches above the upper one. Plant the cuttings by placing them slightly inclined in the ground, and so deep that the upper bud may be just even with the surface. If cuttings are planted where they are intended to remain, it is best to put two in a place, to insure greater certainty of success, placing them a few inches apart, and spreading from each other below, so that one may be taken up without displacing the roots of the other. The soil in immediate contact with the cutting should be rich and very fine, and kept moist until it is fairly rooted, which will be the case when the shoot has grown six or eight inches. As the shoot advances it should be tied to a pole; and all smaller shoots and lateral branches removed with the thumb and finger; keeping a single, clean and handsome stem, which receiving all the nourishment, will become a most vigorous growth.

Cuttings planted late, generally succeed better than those planted early. They should therefore be kept during the early part of spring in a cool damp place, as a cellar or ice house, and occasionally sprinkled with water to keep them fresh, until the temperature of the weather becomes such as immediately to spur them into vigorous and uninterrupted growth.

Soil and transplanting.—The soil best adapted to the vine is a light, rich, deep loam. A very essential point is to have the ground deeply loosened by digging for some feet round the plant, at the commencement of the culture. This indeed would insure success in almost any soil, even the stiffest and heaviest. A rich soil is always best, but manure should never be applied unless it be very finely rotted, and then it should be thoroughly mixed with the earth. If the ground has been manured in former years it will be much better. A very rich soil has a tendency to produce wood rather than fruit.

The same care is to be observed in transplanting the vine as in fruit trees; being very careful, in removing the roots, never to suffer them to become dry; and covering them with very finely pulverized and moderately moist earth. It is important to keep the soil always loose at the surface by cultivation, and never suffer it to be overrun by weeds.

Pruning and training.—The great error with most cultivators, is in a too sparing a use of the knife. Pruning is in general too much neglected, or not freely enough performed, and numerous lateral branches are suffered to grow from all parts of the vine, and sometimes they are allowed to run to the wildest confusion. It is true, the hardy American varieties will grow and bear under almost any culture, but if large fruit of fine quality is desired, pruning is absolutely necessary.

Minute directions are unnecessary, if it is always borne in mind that light and air are indispensibly necessary, and also a thrifty growth. As a general rule, all the smaller branches should be cut away, and only a few of the most vigorous left. The number permitted to remain should be greater as the vine advances in size.

The best time for pruning is late in autumn, but it may be done any time in winter if necessary. It must never be performed in spring, as the copious bleeding at this season would greatly injure if not destroy the vine.

The most convenient way of training, in most cases, is upon a trellis; which simply consists of a row of posts about six feet above the ground, along which are nailed three or four pieces of strong lath. Over this the branches of the vine are spread, and tied with bass matting.

Varieties.—Among the best hardy American grapes, are the York Madeira and Isabella. The Catawbais an excellent variety, though perhaps not so pleasant to most palates as the two former. The Bland is also worthy of cultivation, although it does not always ripen here early enough to escape autumnal frosts. The European varieties, though some of them excel these in delicacy, require much greater care in cultivation, as it is necessary to protect them during winter from cold, and to renew the vines by fresh planting every few years, older plants generally producing only mildewed fruit.

There is scarcely any person so situated as not to be able to cultivate at least one vine. Even those who reside in towns and cities, may raise their own supply of this fine table fruit. A late writer on this subject says, "Those who have no room for a single garden bed, may have their clean brick walk under the shade of a vine of luxuriant growth—the expence is trifling, compared with its permanent advantages. I have known a single vine, cultivated in this way, to produce in one single season, fruit which sold for more than one hundred and fifty dollars, and a neighbor of mine, who keeps a shoe store, could show on a vine seven years old, nearly seven hundred bunches of sweet water grapes, well ripened—yet he had no room for a single garden bed, and trained his vine over a brick pavement. Some of his leisure hours were thus innocently and delightfully occupied without any interference with his business."*

* Port Carbon Gazette, 1832.

Freezing of the Lakes.

One of the most strongly marked and interesting features of western New-York, is the chain of lakes, which, commencing with the Oneida, and embracing Cazenovia, Onondaga, Otisco, Skaneateles, Owasco, Cayuga, Seneca, Crooked, Canandaigua, Honeoye, Hemlock, Long, and Conesus, form a magnificent semicircle; and all of which, with the exception of the four last mentioned small ones, discharge their collected waters through the Oswego river into Lake Ontario. That such bodies of water should have an effect on the temperature of the air in their vicinity was to be expected; especially during the winter months. The Seneca and Cayuga never freeze, the Skaneateles very rarely indeed, while all the others are frozen over more or less early in proportion to their depth. As it is necessary that the whole body of water in these lakes, should, to a considerable depth, be reduced to the freezing point before the surface can be covered with ice, it is evident that in thus cooling down, considerable quantities of caloric must be given off to the atmosphere, and produce its effect in the vicinity. It has long been remarked that the temperature during the spring and fall is less variable on the immediate margin of the lakes, than at some little distance from them; the lakes themselves, from the time required to produce any considerable change in their condition, serving as regulators to prevent any sudden changes around them. Thus early frosts, which frequently prove injurious to late planted corn at a distance from the lakes, are rarely if ever felt near them; and the buds and blossoms of the fruit trees on the margin of these waters, very often entirely escape in the spring, when those at the distance of a mile or two suffer severely. There are some facts respecting the freezing of the lakes worthy of notice. Those that entirely close, are generally frozen over the last of December; and they rarely break up, until it is done finally in the middle of April. We have lived for thirty years near one of the smallest, but not the least picturesque and beautiful of the groupe, and have almost necessarily been a somewhat attentive observer of the phenomenon that attends its changes. That the water in the lake increases in temperature, is not only evident from the thermometer, but from its influence on the outlet of the lake. This, as it draws off the cooled waters from the surface of the lake, is frozen over for weeks before the lake itself is closed; but no sooner is that effected, than their cooling ceases, and as they become warmer, the current flowing from the lake, soon cuts away the ice, leaving the channel free and clear for the rest of the winter. This seems to be well understood by the wild duck, who before the forests had disappeared, and their solitudes had been too frequently disturbed by the white man, used to linger in the waters of the lake till the last moment, and then wing their way to the outlet, conscious that it would soon be cleared for their reception and safety. That the temperature of the water in the lakes is elevated as soon as frozen over, is evident from another circumstance, and that is, the cracking of the ice at distant intervals, after the lake is closed. Water when warming expands or increases in volume, and hence there is in the confined waters a constant ten-

dency to raise and break the ice which covers them. While the superincumbent air however remains cold, or in other words the barometrical pressure continues the same, this cracking of the ice rarely takes place to any extent; but when the sinking of the mercury indicates a decrease in the atmospheric pressure and the presence of a south wind, as it at such times in the middle of winter most generally does, then the crackings and groanings of the ice rapidly proceed in their grandest style. At the distance of two miles and a half or three miles from the lake, the reports from the ice are less sharp and startling, than when upon or near it, but the sound appears to gain in depth and distinctness. At the distance above stated, when the ice is active and the wind fair, the noise resembles that produced by a large number of wagons driven rapidly over frozen ground at the distance of half a mile, and will be thus kept up for hours. Sometimes a crack will commence near one end of the lake, and run with a succession of sharp rattling reports like a discharge of musquetry, nearly or quite to the other extremity, while a dozen more may be crossing its line in other directions at the same moment. When such a rupture of the ice takes place near a person's feet, the ice sensibly rises, so much so that the chasm, which, when the ice is a foot or more in thickness,is frequently an inch or more in width, is plainly wider at the upper surface than at the lower. Owing to peculiar causes the ice in the lake the present winter is of unparalleled thickness. For two days previous to the great snow-storm of January,the wind had been south-easterly and the weather moderate, and the ice which was not then very thick had experienced a thorough cracking. These numberless openings had not closed, when the snow came and pressing upon the ice forced the water up through the crevices, until the whole mass was saturated, but not dissolved. This has subsequently frozen through, forming a mass of great thickness and solidity. This phenomenon of ice cracking is not confined to the lakes of New York or similar latitudes. It is witnessed, as modern travelers testify, on the thick ribbed ice of the polar lakes; though there the effect, from the rapid change from winter to summer in those regions, is much more magnificent and striking than with us; a result to be expected from ice ten feet in thickness, and a temperature fifty degrees below the freezing point. G.

Two Crops of Wheat from one Sowing.

In our last volume, at page 220, we gave an extract from a late English agricultural work, in which it was stated that on some of the best wheat soils in that country, two crops of wheat had grown from the same roots, a fact which we had never elsewhere known to occur. We have now, however, a letter lying before us from a traveler through Michigan, from which we make the following extract: "With some part of this territory through which I passed, I was much pleased, particularly the prairies. I was told at Pigeon prairie, by an honest intelligent farmer, *that he had seen the second crop of wheat harvested from one sowing*. This can be done only after the first ploughing of the prairies." We have a number of subscribers in the prairie countries of the west, and we should be pleased to receive from some of them facts bearing on this point; whether such cases of second crops have come under their notice, and if so, whether frequently, and under what circumstances of soil and tillage they occurred.

Grafting Wax.

We would advise our farming friends to prepare, in the course of this month, when stormy days prevent work abroad, a quantity of grafting wax; as it is sometimes inconvenient to allow time when wanted, and the husbandry of time is one of the secrets of success in farming. The following proportions of the usual materials have been recommended as good, viz: two and a half pounds of Rosin, one pound of Beeswax, and one pound of tallow; or one pound Rosin, three pounds Beeswax, and two pounds tallow: but the recipe we use, and which we know to be good, is as follows,—half a pound of tallow, one pound of bees wax, and two pounds of Rosin,—the whole melted together, and then worked in water like shoemaker's wax into rolls for use. Where the grafting is to be performed is the nursery, or on smalltrees or branches, the most convenient mode of applying the wax in by having it on strips of muslin of a width proportioned to the size of the tree, from one to three inches. These strips of muslin are prepared, by taking cotton cloth, cutting it into strips and dipping them into the waxwhen melted. When the branches are large, it is best to apply the wax directly to the cut limb, and when of a proper consistence and temperature, with the hands kept slightly greased, the use of this composition is perfectly easy and effectual. If you make a little more than you use this spring, it will not be lost; we have some two years old which retains all its good qualities. G.

New Eggs.

Those who prefer new laid eggs to those that savor of antiquity, and who does not, the "Barnaby Palms" of the age excepted, will do well to pay attention to the proper feeding of their fowls at this season of the year. Fowls fed as they generally are, when fed at all, on whole grain will not do well unless furnished with a supply of fine gravel stones. Where they can come to the earth, they secure a supply for themselves, but this winter the sight of the earth has been a rarity, and fowls have suffered accordingly. Limestone gravel, or pounded limestone, is preferable to any other kind, as besides furnishing the means of masticating or grinding their food, the lime required for shells is also provided; without which soft shell eggs, or no eggs at all will be produced. Farmers are not generally aware of the superior quality of eggs laid by fowls fat or at least in good condition. There is scarcely more difference in richness and flavor, between the beefsteak from the well fatted ox, and the one in barely working order, than there is between eggs from well fed and healthy fowls, and those that are lean and half starved. G.

Curing a vicious horse of biting.

The following singular mode of curing vicious horses of this habit is taken from Burckhardt's Travels:—"I have seen horses in Egypt cured of the habit of biting, by presenting to them while in the act of doing so, a leg of mutton just taken from the fire; the pain the horse feels in biting through the *hot meat*, causes it after a few lessons, to abandon the habit.

Weight of Grain.

It may be interesting, and possibly of real utility to young farmers, to give the average weight of some of the most common kinds of grain and grass seed.

Wheat, mean weight	60 lbs.
Rye, do	56
Barley, do	48
Oats, do	35
Indian corn, do	58
Peas, do	63
Beans do	62
Red clover, do	64

The weight often varies a few pounds to the bushel, according to the season and climate, soil and culture, and variety of seed. Wheat has weighed as high as sixty-seven and a half pounds, and Indian corn sixty four pounds per bushel. Some barley has weighed as high as fifty four pounds. On the other hand, grain has often weighed less than the number of pounds above given, as unfavorable circumstances have operated. Wheat has fallen as low as fifty-five, rye as low as fifty, and barley as low as forty-five.

Liquid Glass.

We copy what follows, from a writer who has published a series of Essays in the New York American on the best method of rebuilding and improving that part of the city of New York which was destroyed by the great fire. Liquid Glass may be found useful however, to many persons not resident in cities; and such readers as have not seen the account, may receive it as a curiosity.

"It is a fact long known to chemists, but only recently applied to the arts, that there is a composition of the same materials as glass, which is *soluble in water*, and may be applied to wood with a brush. When thus coated, *heaps of glowing embers may be laid upon it without injury*; and though it may be decomposed and charred by an intense heat, it will *not burn with flame*, and therefore will not aid in spreading combustion. It might easily be prepared at the glass houses in our neighborhood, or might be imported in a liquid state from Germany, where it is already beginning to come into general use. This may also be applied readily to buildings already erected, and would add most materially to the security in our present exposed state. On floors and wood-work thus prepared, the incendiary would produce no effect; and if other articles should be inflamed, the fire could not well go beyond the first brick wall, unless these articles were of the most combustible character.

"For public use the composition and preparation of this substance, known as soluble glass, is annexed. The proportions of the substances, which constitute this glass, are *ten parts of sand, fifteen of pearl-ash*, and *four of charcoal*. It must be treated exactly as the mixture employed in Crown-Glass, by fritting and melting. From the melting pots it may be ladled. It must next be reduced to powder by means of stamps, and then added by degrees to about five times its weight of boiling water. After it is dissolved, the liquor must be boiled until it has the consistency of oil. In this state it may not only be applied immersed, but it is a good vehicle for paint, and in this has been applied to all the ornamental wood work and the scenery of the theater at Munich. The materials used as paints with this vehicle, are much less costly than those which can alone be used with oil: thus a mixture of clay and whiting may be used instead of white lead and the ochres, without any of the costly preparations of lead which are used as driers. It is only to be regretted that it will not bear exposure to the weather."

COMMUNICATIONS.

LETTERS FROM A FATHER,

Living in the State of New York.

To his Son in Western Pennsylvania.

NO. XIII.

On the Culture of Potatoes.

To MY SON—In a series of letters, claiming to be agricultural, and to contain a general treatise of rural economy, the *root* husbandry should not be overlooked. By the root husbandry is meant, as I understand it, the field culture of roots, with intent to provide food for neat cattle, horses, sheep and hogs. The roots principally relied upon for the purposes aforesaid, are potatoes, turneps, ruta baga, mangel wurtzel, carrots and beets. It does not appear that the comparative merits of the roots thus enumerated, have been ascertained to the general satisfaction of the farming community. Some prefer one of them, and some another. No doubt they are are all valuable roots, and susceptible of field culture to greater or less degrees of profit, according to congeniality of soil, and other circumstances.

Although it was known here that the root husbandry had succeeded perfectly well in some parts of Europe, especially England and Scotland, and had achieved wonders in accumulating the wealth and resources of those countries, yet it was for a long time doubted whether it would succeed in this country, where the winters are long and severe. By the experiments of several enterprising gentlemen in different parts of the country, the question has of late been put to rest—doubts have been removed, and scepticism has yielded to the truth. It is no longer doubted, by those who are competent to judge, that the root husbandry can be applied to this country, and that too to the great advantage of the general interest of its husbandry.

At the head of the root family stands the potatoe. Although potatoes may not be, and probably are not, the best roots for field culture, when the object is to produce food for neat stock and sheep, yet for the many other important uses to which they are applied, they are entitled to high estimation, and may justly claim superiority to every other kind or species of the root family. For fattening pork they are probably better than any other sort of roots. But their principal excellence is for the table. *Here* they have no kindred rivals. As an article of food, sustaining and comforting human life, the potatoe stands pre-eminent above all his fellows.

If a multitude of extant publications on the culture of potatoes should be considered as superseding the necessity of writing and publishing any thing more upon the subject, then I ought to drop my pen instantly, and write nothing more on the subject of potatoes. Enough to compose volumes has been published on the subject. The agricultural journals teem with potatoe experiments and instructions, such as they are, relative to the manner of cultivating the crop. But unfortunately, the results of experiments are so discordant, and many of the opinions given are so contradictory to each other, that an inquirer after truth can scarcely be benefited by reading what has been published. I do not mean to pass an indiscriminate censure on all the publications, relative to potatoes, that have appeared in the public journals. Many of them are sensible productions, and but for their misfortune of being connected with visionary and contradictory associates, they might be read with interest, and be useful guides to correct practice. As things are, they labor under great disadvantages. It does not appear after all that there need be any peculiar difficulty in cultivating potatoes. There are, indeed, a few common sense principles which ought always to be regarded. What these are I will endeavor to show, and when that is done, the subject will be dismissed.

In the first place, it is important to the potatoe planter that he have in his possession a good variety or sort of potatoes. Every planter should make this a primary concern. The potatoe family, like almost every other belonging to the vegetable kingdom, is composed of many varieties. It cannot be supposed that they are all equally productive, or equally meritorious, in point of flavor or nutritive substance. The fact is known to be far otherwise. Some varieties are known to be comparatively, if not positively, worthless, while among others will be found representations of all the degrees of comparison—good, better, best. To cultivate an inferior sort of potatoes, while a better, and even the very best sort, might be cultivated with equal ease, and no greater expense, is a practice which can admit of no justification. Yet this is frequently done. That any farmers should practice so indiscretely in regard to this concern, as it is known many do, is altogether unaccountable. Should a potatoe planter desire me to give him instructions relative to the culture of potatoes, my first precept would be, procure a good variety—spare no reasonable pains to procure the very best variety that can be obtained. I might recommend a few varieties, but there will not be room in this letter for a description of them.

Previous to planting, care should be taken to ascertain, as nearly as possible, what quantity of seed is required for a hill of potatoes. It should be a quantity neither greater nor less than is necessary to secure the most profitable results. I use the word *seed*, because I know of no other that will so readily and advantageously express my meaning. Yet the potatoe bulb or root is not seed. Potatoes do, indeed, frequently produce seed, but that is quite a different thing. When, therefore, I use the term *seed*, I use it according to popular custom, meaning the potatoe itself. It is known that, in regard to the quantity of seed necessary to be used, there are diversities of opinion, and practice differs accordingly. The prevailing inclination seems to be, to use seed to excess. Planters, if I am not mistaken, err more frequently in using too much seed, than in not using enough. It does not appear that the potatoe crop is benefited by heavy seeding. Too much seed is detrimental to it, by causing more roots, and a greater number of potatoes to grow, than is consistent with thrifty vegetation. If I plant whole potatoes of the size of turkey's eggs, (and I would never plant smaller ones,) one alone suffices for a hill. If it were larger it would please me better, and it may be considerably larger, perhaps twice as large, and yet be planted without cutting. I rarely plant more than one whole potatoe in a hill, and if they are cut, as they always are when large, then only one piece suffices for a hill.

The largest potatoes should always be selected for planting. It is, as I maintain, a general rule, applying to all vegetable, as well as animal tribes, that the more perfect the parents are, the more perfect the offspring or progeny may be expected to be. Husbandmen, when selecting seeds for their various crops, should never lose sight of this rule. To plant or sow seeds of an inferior quality lessens the prospect of a good crop, and it tends to deteriorate the species or variety. If persisted in, it will, in a little time, render the produce worthless.

In regard to the culture of potatoes, the error of planting imperfect seed is practiced to an unpardonable extent. The very smallest potatoes, such as are scarcely fit for any useful purpose, are often selected for that use. The consequence is a rapid deterioration in the quality and quantity of their produce. It does not appear to be true, as many suppose, that potatoes, in order to perpetuate their good qualities, need to be frequently changed from one distant place to another. I have cultivated the Sardinia potatoe more than twenty years on my farm, in an uninterrupted succession, always using seed produced on the farm, and not the least symptom of deterioration has appeared, in regard to either the quantity or quality of its production. On the contrary, the variety appears to have improved under my culture.

My practice, as before remarked, is, to select for planting the largest potatoes. I am particularly careful to select for that use such as are overgrown, and are for that reason unfit for culinary purposes. If, after all these are taken, there still remains a deficiency to be supplied, the next largest and best potatoes are selected for that use. As I always plant large potatoes when such can be obtained, my practice of course is to cut them, and in doing this I endeavor to divide them so as to give to each half of a potatoe an equal number of eyes or buds, or as nearly so as practicable. The half of a potatoe thus divided supplies seed for one hill. Sometimes, when the potatoe is very large, it is divided into more than two parts, and then each part supplies seed for a hill. Although the practice of cutting seed potatoes is by some objected to, yet I am satisfied that cutting does them no injury, and if they are large, as seed potatoes always should be, cutting is absolutely necessary.

At what distance apart should potatoes be planted? This is an important question, and I regret that I cannot answer it to my own satisfaction. I am inclined to believe that planters err more frequently in planting too thin than otherwise. The more general practice, so far as I know, is, to plant potatoes in hills, but they are sometimes planted on rows in one continous order. If planted in hills, I cannot suppose the hills need be distant from each other more than three feet; perhaps smaller distances would be better. If planted on rows in a continuous order, which is probably the better way, the rows may be four feet apart, and then the potatoes should be dropped on the rows one within twelve or fifteen inches of another. The evils to be guarded against in making choice of distances

are, on the one hand, not to waste the use of land by neglecting to distribute seed upon it in sufficient quantities and in a suitable manner, and on the other, not to injure the crop by over-seeding. Questions in such cases relative to distance can be settled only by experiments. Yourself, and every other farmer, should become an experimenter. It is in the power of every farmer to institute and carry on many experiments in relation to practical husbandry. It may be done on a scale so small as to cost merely nothing, and put nothing to hazard, and yet be the means of settling many doubtful questions, and thus improving his own husbandry and that of the country around him.

The culture of potatoes differs from that of most other crops belonging to the drill husbandry only in a few particulars. The potatoe crop requires a rich soil—no matter how rich. Any sort of dung may be applied to it in profusion. In many cases it is good practice to dung potatoes in the holes. Plaster operates on potatoes to as great effect as on any thing else. Potatoes require also, in common with all other tilled crops, good tillage. But in regard to tillage, care should be taken to discontinue it earlier in the season than is necessary and proper in relation to most other crops. After the time when potatoes are in blossom, the ground about them should not be stirred by any implement of tillage. At that time the bulbs or small potatoes are formed or forming, and any subsequent agitation of the ground causes new roots to grow, and multiplies the number of potatoes. The consequence is, that the potatoes are many and small, and the crop less valuable than it otherwise would be. If, after the season for tillage has passed, weeds grow among potatoes to their injury, they may be pulled out, but this should be done with as little disturbance to the ground as practicable. In some instances, when large weeds grow in close connection with the hills, it will be better to cut them out with a sickle or sharp knife.

The practice, once universally prevalent, of hauling up the ground and raising high hills about the potatoes, fitted only to turn off the water which the crop needs, has not been able to abide the lights of science, or the experience of modern times. It is now almost universally exploded, as absurd, unphilosophical, and mischievous to the crop. Farmers in general are now well satisfied, that neither potatoes nor corn need hilling, and that in either case high pointed hills are detrimental. The ground about potatoes should be left in the best form to retain the water that may fall upon it—if descending at all from the hills, the descent should be very moderate and sloping.

It is not advisable to dig and harvest potatoes early in the fall. There is reason to believe, and many do believe, that potatoes improve, under some circumstances at least, and continue to advance towards greater degrees of maturity, long after their tops are dead. Be this as it may, it is certain they can be placed in no other situation so favorable to their keeping well, and preserving all their good properties, as in the hill where nature placed them. If they could continue there through the winter, uninjured by the frost, they would come out in the spring in superior order. It is better, therefore, to defer harvesting the potatoe crop till rather a late season in the fall, yet prudence must be exercised, and care taken, not to allow the crop to be fastened in by the winter.

An opinion prevails extensively, and it is sustained by our best authorities, that it injures potatoes to dry them, especially to have the hot sun shine much upon them, after they are pulled. It is said the effect of this is, to alter their flavor, often, if the heat be great and long continued, turning them to a green color, always rendering them less palatable, and sometimes poisonous. In regard to these doctrines I am not altogether an unbeliever. Recently it has been my practice, when harvesting potatoes, to expose them as little as practicable to the weather, especially the hot sun. The sooner after they are dug I can get them to the cellar, to the pit, or some other dark place, the better I am pleased, and if they are wet and dirty that gives me no trouble. A Father.

New York State, February, 1836.

Estimate of the Profits of an Acre of the Chinese Mulberry.

Inquiries are frequently made as to the amount of profits which may be realized from an acre of land planted with Mulberry trees—the length of time before the leaves may be used—the labor and expense of atttending a given number of worms—and the quantity of silk they will make. The profits of an acre will depend upon the kind of Mulberry used, the number and age of the trees, and several other circumstances. Our present estimate will be made with the Chinese Mulberry, or *Morus multicaulis*, which will yield a greater profit than any other kind. We will suppose these trees one year old from the cutting or layer, set in rows 4 feet apart and 3 feet in the rows, as recommended by Mr. Joseph Davenport, which will be at the rate of 3630 trees to the acre. With this kind of Mulberry the cultivator may commence feeding the worms the next season after the trees are set out, and realize a handsome profit, which will increase every year until the trees have attained their full size. Its rapid growth, its large, abundant and nutritious leaves, and the great facility with which it may be increased, with several other excellent qualities, give it a decided superiority over every other kind. "One pound of its leaves," says Mr. Gideon B. Smith, "contains as much nutritive matter as a pound and a half of the White; the silk made from it is of a finer texture and more lustrous; its leaves are so large that a pound can be gathered at half the expense and trouble that a pound of the White leaves require." "Where labor is a primary object," says Mr. Edward P. Roberts, author of a new Silk Manual, "this tree does certainly possess *an advantage of immense value;* having no coarse fibers, the worm consumes the whole of it, leaving no offal whatever; whereas the leaves of the White Mulberry have at least *one-third* in stems and grass fibers, that cannot be consumed; which is, of itself, equal to one-third of the labor in the gathering of the leaves and feeding the worms. It is said that worms fed upon the leaves of the *Morus multicaulis* afford a better silk than those fed on the leaves of the *Morus alba*, the White Italian; that it is more elastic and of richer texture." So speedily are its leaves reproduced, that two successive crops of silk may be raised the same season.

To estimate the profits of a single acre, we must know how many pounds of leaves it is capable of producing, the quantity of silk they will make, and the expense of making it.

Amount of Leaves.—It has been ascertained by actual experiment, (see Gen. Far. vol. 5, page 397,) that trees one year old from the cutting will yield each upon the average 1½ lbs. of leaves—two years old 2½ lbs.; we may reasonably calculate upon 3½ lbs. the *third* year—5 lbs. the *fourth* year—6½ lbs. the *fifth* year—8½ lbs. the *sixth* year. We believe the trees would yield more, but we wish to keep within bounds. At this rate this acre of 3630 trees would yield the *first* year 6,445 lbs. of leaves, the *second* 9,075 lbs., the *third* 12,750 lbs., the *fourth* 18,150 lbs., the *fifth* 23,595 lbs., the *sixth* 30,855 lbs.

Amount of Silk.—According to Count Dandolo, 21 lbs. of leaves of the White Mulberry will produce a pound and a half of cocoons if the worms are well managed—300 is the average number of a pound, and it requires from 7 to 10 lbs. of cocoons, according to Count de Hazzi, to produce a pound of reeled silk—8 lbs. have yielded it in this country. Mr. Cobb produced 3 lbs. including floss, from 8000 cocoons. It is also estimated that 100 lbs. of leaves is sufficient to produce a pound of silk. Now, as one pound of leaves of the Chinese Mulberry, in nutriment, is equal to a pound and a half of the common White, it would require one-third less of the Chinese to produce a pound of silk—that is, 67 lbs. of leaves—to be on the safe side we will call it 80 lbs. The amount of silk then that might be produced from the acre of Chinese Mulberry trees in these respective years, would be, according to this estimate, 72 lbs., 121 lbs., 159 lbs., 227 lbs., 295 lbs., 385 lbs., which, at $5 a pound, would amount to the several sums of $360, $605, $795, $1,135, $1,475, $1,925.

Expense of Making.—This will depend upon the amount and price of labor necessary to attend a given number of worms, and to reel the silk. Mr. Gideon B. Smith, a practical silk culturist, says, "The number of attendants necessary for 1,000,000 of worms, will be *two* the first week, *four* the second, *eight* the third, and *nineteen* to *twenty* the remainder of the feeding season, [about two weeks,] one half of which may be boys and girls." This number of worms, it is said by Mr. Kenrick, will produce 400 lbs. of silk, if they are well tended, and the silk well reeled. The expense of labor of this number of attendants, half of whom may be children, and most of the remainder women, may easily be calculated. The cost of reeling, it is supposed by Mr. Roberts, will not exceed 50 cents a pound. A woman skilled in reeling, with the aid of a child to turn the reel, it is said can reel a pound in a day. Perhaps 75 cents a pound would be a more reasonable estimate. Mr. Roberts makes an estimate of the cost of producing a given quantity of silk in his Manual, valuing the silk at $4 a pound, and makes it a little more than *one-ninth;* we think that in this he cannot include the cost of reeling. M. Carrier, a silk culturist in the department of Avig-

non in France, in a statement of the actual cost of a crop of silk he raised, valuing the silk at about $5 a pound, makes the whole expense between one-*fourth* and one-*fifth*. The sum realized was 1,963f. 55c. or $371,91 of our currency. The expense of management of the worms, 171f. 75c. or $32,10—the *reeling* 263f. 85c. or $49,47—whole expense, $81,57, which deducted left the nett profit of $290.34. A gentleman in Connnecticut has signified his readiness to contract for making cocoons at one dollar a bushel, that is, to perform all the labor, and says he can make a fair profit at this price. The present price of cocoons is $3 a bushel—a bushel contains between four and five thousand cocoons, as we have ascertained by counting the number in a quart, sufficient to produce at least 1¼ lb. of reeled silk, worth, at $5 a pound, $7,50; call the reeling of this, at 75 cents a pound, $1,50; add this to the cost of raising a bushel, and we have $2,13, which deducted from $7,50, leaves $5,37 nett profit, which brings the expense between one-*third* and one-*fourth*. The actual expense of culture to the person who carries on the business, would be less than one dollar a bushel; so that we may fairly calculate, *that one fourth would cover the whole expense of rearing the worms, reeling the silk, and the interest on the investment of land and the necessary apparatus.* Deducting then *one fourth* from the amounts before given, we have the following results as the nett profits of an acre of Chinese Mulberry: *First* year, $270, *second* $454, *third* $596, *fourth* $851, *fifth* $1,106, *sixth* $1,444—a very handsome profit from one acre of land. But if this be considered too great, deduct if you please *one third* as the cost of raising the crop of silk and fitting it for market, and we then have these several sums as the nett profits—$240, $404, $530, $757, $984, $1,284. To show that we have calculated within bounds, we will state a few facts which have been published. "Four acres of ground planted in Mulberry trees near Boston, afforded enough food in one season for the support of as many silk worms as produced 420 lbs. of silk. All the labor was performed by *four* girls, whose attention was required but a small portion of the year." This must have been done by several successive hatchings of the worms. "Mrs. Alfred of Preble county, Ohio, with the aid of one small girl and two boys about twelve years old, fed and attended about 50,000 silk worms with the leaves of the common wild mulberry; from her labors of six weeks she realized $225 from the sale of the raw material." A citizen in the vicinity of Dayton, "with two boys, attended 100,000 silk worms, which produced 300 lbs. of cocoons, which sold in Cincinnati for $125." Mrs. Daniel Parker, of Claremont county, raised from 50,000 worms, $180 worth of silk with the assistance of her two little daughters." "Mr. James Smith of Bladen county, North Carolina, made 100 lbs. of fine sewing silk, besides the floss, from 200,000 worms, which sold for $700; four or five negro children attended them under his inspection." (See Silk Culturist for Dec.) We might multiply facts, but we think these sufficient to show that our estimates are not too large to be realized, and what an immense profit may be derived from a small amount of capital and labor. Our estimate is made upon the supposition that the trees are kept in a thriving condition by proper cultivation, the worms well fed and attended, and the silk well reeled in a good marketable state; for, to use the common adage, "that is worth *well* doing which is worth doing at all." If in our estimate we have committed any errors, we shall be happy to have them pointed out. W. W. B.

The Honey Bee.

BY J. H.

Mr. Tucker—The labor of this insect, perhaps, of all others, is the most interesting to man. Their government is a monarchy, the most perfect of any in the known world. It is wholly confined to the female line. No male among them is ever made their king, but a female is always at their head. Their kingdom is perfectly peaceable among themselves, without sedition, riot or rebellion, but when hostilities are commenced by another nation from without, or by any common enemy, their whole kingdom is at once put in battle array on the defensive. The queen bee, besides being sovereign in the hive, is also sister to all the bees of the same swarm or family, and is the mother of all the swarms that are sent forth from her hive or kingdom. If she by any means happens to die, her kingdom is at an end, —her place is never supplied by another or new queen, although the swarm may continue for six months after her death, but constantly on the decline. Something further upon this part of the subject may be said hereafter. At present I shall pass many of the peculiarities of this wonderful insect, whose instinct often rises far above the reason of man, and endeavor to show how they can be made the most useful to the owner.

Having had the care of bees for more than fifty years, and constantly watched their movements, and tried many ways to make them more productive, I have at length given up all experiments, such as the collateral hive, the hive formed with a number of boxes one upon another, the small dark house, and the open garret, being fully satisfied that the better way is to consider them as bees and nothing more, and let them take their natural course. For this purpose I make for them a hive, either of a hollow log, of board, or of straw, which will contain about the same quantity of comb and honey as we generally find in a bee-tree in the woods, always making a hole in the top of the hive of an inch and a half in diameter, such as is made in the bilge of a cask, and to be stopped with a bung in the same manner, which bung may be taken out without any disturbance to the bees, and then place a box or cap on the hive of six, eight, or ten inches square, at any time when I discover the hive is nearly full of comb, taking care that the cap shall be so made as to unite close to the top of the hive, but should it not fay down, then take a little clay mortar or mud, and plaster the same so as to make it tight. The bees will be sure to fill the cap with pure virgin honey, if they have time and the season is favorable, which cap may be taken off at any time without vexing the bees, taking care to put in the bung again. They will seldom attempt to fill the cap a second time the same season, and will always have enough to carry them through the winter in the main body of the hive. Should there be bees in the cap when it is taken off, carry it four or six rods in front of the hive, and place it bottom upwards on the ground, and strike it moderately with a stick —the bees will soon leave it and return to their hive peaceably—they seem to understand instantly that they are separated from their queen, and that it will be in vain for them to contend for their property except she is present with them. This is as far as I think it best to go in robbery.

Bees are a busy, industrious insect, and the first swarm in the season from the same hive, will always gather honey with astonishing rapidity, if the season is good for their labor, that is, warm and dry, and no disaster befalls them. They frequently meet with discouragements by various means. If their newly made comb melts down, as it often happens when the season is extremely warm, so that nearly one-half thereof falls to the bottom of the hive, to prevent which sticks, as is usual, should always be placed across the hive at the time it is made. But their greatest discouragement is caused by their greatest enemy, the miller and the worm. The miller, or the moth, as it would be called in the silk worm process, is a small insect, not near as large as the common yellow butterfly, is very quick in its movements, and difficult to be caught when on the wing—their appearance (like all other millers) is always in the twilight between sundown and dark, at which time they may be seen hovering around the mouth of the hive where the bees go in and out, and often darting into the hive with and upon the bees. The bees do not appear to be disturbed by their presence. These millers deposit their eggs in the comb and in the rubbish which gathers near the edges on the bottom of the hive. All that can be done to destroy these eggs is, to turn the hive up and brush it out every day with a wing, or a little broom brush; and the best way which I have discovered to destroy the miller, is to take vinegar and water, about half and half, and sweeten it with molasses—then pour it into small bowls or teasaucers, and in the dusk of the evening place them around and on the top of the hives. It is not unusual to find a number of the millers drowned in this liquid the next morning, when these vessels must be taken away or covered up to prevent the bees from being drowned also, and this must be repeated so long as the millers are seen about the hives. Another way to destroy these millers is to examine the outside of the hives every morning, for they generally rest there through the day, and may be killed without much trouble. The eggs of the miller being deposited in the hive as above mentioned, the warmth created by the bees will soon hatch them, when a worm or maggot is produced. They are at first very small, and begin their operations upon the comb. When full grown they are an inch long, and of the size of the little end of a pipe stale. The comb and not the honey seems to be the food of these worms, and they often eat off the comb where it joins on to the top of the hive, so that the whole body of the comb falls down into a heap. When this is the case the bees are discouraged, and become inactive, and by this operation of the worms are wholly destroyed. To save the bees from being

overcome in this way, I have found the following to be the best mode: Take the sticks of the common white elder, as large as a man's finger, cut them one foot in length, scrape off the bark, split them from end to end as nearly as may be of equal parts, shove the pith out, notch them upon the edges, and slide them under the hive, say four to each hive, with the convex side of the stick upwards. When the bees contend with the worms, and drive them down from the comb, they will escape from the bees and hide themselves under the elder-stick, which being drawn out in the morning will often contain a dozen worms. This seems to encourage the bees; at any rate it tends to keep the hive clean, and takes from it the web of the worm, which is very annoying to the bees, and generally is found as a shield to the worm. With close attention to my bees in the modes above pointed out, I have saved every swarm for several years past. The hives should be placed on four blocks one inch square, and at least half an inch thick.

In my next number I will show how five swarms out of six may be drawn, when they are swarming, directly into the hive prepared for their reception. J. H.

Siberian Oats.

BY O. P. Q.

Mr. Tucker—I have ascertained that the oats of which I sent you a specimen, (see Gen. Far. vol. 5, page 241, are of the variety called Siberian or Tartarian. The Rev. Henry Colman thus speaks of them in his "Notes by the Way" —"But two kinds of oats were observed by me, the common white oat, and the Siberian or Tartarian oat. The Siberian or Tartarian oat, as it is denominated by Loudon, is but little cultivated, and seldom found alone. The straw is very large, and the grains are all pendant on one side of the stalks. It has from this circumstance acquired the denomination of the Horse Mane oat. It was stated to me that a distinguished farmer in Walpole, N. H., had cultivated it exclusively several years; that he usually obtained sixty bushels to the acre, and they would weigh 36 lbs. to the bushel. This I have however only from report, a very doubtful authority in such cases. The Shakers at Canterbury spoke in praise of it, but Loudon says it is but little cultivated. It is later in coming to maturity than the common oats, but its appearance when growing is singularly beautiful and promising."

From the experience of cultivating them one season, I am highly pleased with them. I procured two bushels of seed from Ohio, and wishing to sow them very early, I took a piece of wheat stubble which had been ploughed the fall previous, and sowed them without any farther preparation, some two or three weeks earlier than I could have ploughed the land. Before I had finished sowing them, a severe storm commenced, and the land remained frozen and wet 18 days before I could harrow them the second time. At this time many of them were up two inches, and were it not that many remained uncovered, it would have been better to have omitted the second harrowing. Long before they were ripe it was noticed that they were much stouter than the common oats adjoining. After they were ripe, a severe east storm prostrated them, which rendered the harvesting difficult, and many were wasted. They also suffered much from the depredations of hens, while thus down in the field, and from mice in the mow. Notwithstanding all these untoward circumstances, they produced seventy bushels; and I have no doubt had they been sown and harvested under favorable circumstances, the proceeds would have been more than eighty bushels. The land was not measured, but I think it must be short of an acre.

The kernel is a beautiful yellow, plump, looking at a little distance like barley. They require a rich soil and early sowing, and I believe they are far preferable to the common oat. I have taken pains to keep them separate from the common oat, and from all foul seed, and can spare a few bushels should any of your readers wish to try the experiment of raising the Siberian oat.

Yours, &c. O. P. Q.

East Bloomfield, March 18, 1836.

Town Agricultural Societies.

BY W.

Mr. Tucker—In the last number of the Monthly Farmer, you request the opinions of your subscribers on various subjects connected with agriculture. On none of the topics mentioned, however, do I propose at the present time to make any remarks, but simply to offer a few suggestions relative to the best mode of diffusing agricultural information, by creating a system of combined effort among all classes of farmers through our country. The fact that but few of the great mass of the American farmers, as at present organized, derive little or no knowledge from the experience of their brethren needs no argument in its support. This then being the case, what is to be done to remedy the evil? County agricultural societies benefit unquestionably those who have enterprise to connect themselves with such associations; but these are in general men who need the least instruction in their business, and the knowledge of this serves to keep in the back ground men whose means and opportunities are such as will not permit them to compete successfully among this body of farmers, comprising as it does our wealthiest and largest agriculturists. Besides, there is (whether true or false) an impression in the community that interest stands a better chance of being rewarded than merit. This feeling of jealousy arises from the inequality of representation, perhaps more than from any or all other causes put together.

Now then if a system can be adopted that will secure all the benefits derived from the present mode, obviate its evils, and extend the operations of the combined agricultural community to every farm-house in Union, that point will have been reached beyond which progressive improvements in organization must cease. But who can predict at what period from such a system knowledge will cease to be disseminated or discoveries terminate. The plan which I would propose, to secure all the benefits that agricultural societies are capable of conferring, is to establish Town Societies in every town in the state auxiliary to county associations, (which are to be organized by an equal representation from all of the town societies in the county,) and these again to be connected with, and to be the body politic which shall create a State Agricultural Society to be composed of delegates from the county associations. The establishment of Town Agricultural Societies might be made compulsory upon the several towns in the state by an act of the Legislature, with a general law of incorporation, defining their powers and duties; and if the towns were obliged to raise a certain sum yearly, to be applied under the direction of the societies thus incorporated, for the mutual benefit of its members, in the shape of premiums, it would serve to stimulate all who were obliged to contribute to its funds in their endeavors to participate in its distribution. The town societies should be obliged to report their operations annually to the county associations, and these to the state society; and the state society ought to make an annual report to the Legislature, who should adopt some measures for the compilation of all useful information, with a view to its preservation and dissemination. It is not to be expected that in the limits of a letter the reasons and arguments that might be adduced in support of Legislative enactments for the benefit of the greater portion of the people of this country, and upon whose prosperity all others in a great measure depend, can be enumerated or touched upon but slightly, and I shall not at this time attempt it, believing as I do that there are a great many persons whose information renders them so much better qualified to arrange and present them to the public than myself.

If in your opinion this communication contains any hints that will direct the attention of practical farmers to the subject, and serve to draw out their opinions in support of this or some better plan for united action, thyou will very much oblige a subscriber by its insertion in your paper.

Marshall, March 18, 1836. W.

The Freezing Well at Mendon.

BY H.

Mr. Editor—The explanation of the freezing of the Mendon well by H. B. L. does not appear altogether "rational" to some of your readers. His theory is, that the water of the well is cooled down to the temperature of the atmosphere at the surface of the earth, filters through the earth to the bottom of the well, and then congeals. Now, sir, if the atmosphere were reduced to as low a temperature at the residence of L. B. L. as it has been at mine, and probably at the well, the past winter, he would hardly conclude that water cooled down to its temperature would be in a condition to filter through 35 or 38 feet of earth. If I could account for the manner water thus reduced gets to the bottom of the well, the existence of ice there would appear quite rational; but as I know of no way to filter water but in its liquid state, and conclude, (supposing it to be fed by surface water,) it cannot be reduced to the freezing point when it leaves the surface, and that it does not meet with any stratum of earth on its passage below 32°, but that it must encounter some substance at the bottom of the well, reduced below the freezing point, to which it imparts its heat and congeals. Now what this substance at the bottom of a well 38 feet deep is, is still the question. H.

To prosper, a man must think much, and act with energy and assiduity.

[COMMUNICATION.]

Curious Relic of Antiquity.

The Editor of the Schenectada Democrat copies the communication we furnished a few weeks since, giving a description of a "*Curious Relic of Antiquity*," but expresses his doubts of its antiquity. He remarks, "Before we can form a satisfactory opinion relative to the antiquity of this '*piece of sculpture*,' and its origin we would like to be informed whether its face is of Chinese mold. If so, there may be some ground for the conclusion, that it was deposited where found, by a Hami Tartar, herds of whom were driven out of Hami by the Chinese about 2000 years ago; and who are presumed to have taken with them Chinese ware, utensils, &c. The relic, however, described, is not, we think, sufficiently *rude* to have been made at that early period." In a specimen so small it would be difficult perhaps to determine whether the features are of Chinese mold—the face appears to be some worn, and the nose considerably flattened. Since penning our former communication, a more minute examination has convinced us, that the figure *was not sculptured*, but formed by a mould; though there are some evident traces of the knife. We profess not to be much of a judge in these matters, but rest the antiquity of this specimen upon the fact of its having been found with other similar specimens in one of those ancient fortifications or mounds which are scattered through our country, particularly in the western states, of which the present race of aborigines can give us no account. It is not improbable it may have been deposited there by a Hami Tartar as suggested above. These people may have emigrated north and passed over Bhering's Straits to this continent. Our present race of North American Indians are, not without reason, supposed by some to be of Tartar origin. Similar specimens of a black earthen ware, we were informed by the gentleman who presented us with this specimen, have been found in one of these ancient mounds on the Genesee River, in Allegany county, a few miles from the village of Angelica. We think it very likely that the one we have is of Chinese manufacture, but see no absurdity in the supposition of its being as ancient as 2000 years. The Chinese are known to have cultivated the arts from a very early period; and have arrived at a greater degree of perfection than any other nation in the world in the manufacture of earthen ware. We should think that with that ingenious people, a more *rude workmanship* than the present specimen exhibits, would not be necessary to entitle it to an antiquity of "more than half a century."

March 7th. W. W. B.

From the Ohio Farmer.

Spaying Cows.

I have seen several pieces upon the subject of Spaying Cows lately—as they performed the operation somewhat different from what I do, I will state what is my practice.

I make a soft rope of hemp which I fix at each end of a crooked piece of wood, like the one used for spaying hogs, only larger. These ropes should be long enough when doubled, so as to form a slip knot, to go over the hocks of the cows and heifers intended to be spayed, and they should be fixed on, and the heifer suspended by means of a sweep, until only the head, neck and shoulders, rest upon the ground.

I then, with a crooked pair of sheep-shears, shear the hair off the belly just below the udder (as they hang) large enough to get my hand into, and I then introduce my hand and carry it back to the back bone, and raise my hand until I find the ovary, which I draw out and cut away, not only the ovary, but all the fallopain tube, taking it off close by the horns of the womb. Cutting close will prevent the cow from going into heat. After I have taken them out in this way, I sew her up with a common spaying needle, but instead of thread, I use buckskin or sheepskin. The advantage of skin instead of thread is, that it is absorbed and does not irritate the parts like thread. One case that I examined eight days after the operation, was healed, and none of the stitches left. I then apply a little hogs-lard, in which there is a small portion of tar, to keep off the flies, if at a season of the year when flies are troublesome.

I prefer performing the operation in the fall or spring. I have spayed them from eight days old to three years; and have spayed some that were with calf, not being apprised of their situation, until I had opened them. They cast their calves in a few days, and recover as soon as the others.

I have also spayed them in the side, but find it more troublesome than spaying in the belly; though after the operation is performed, I have always thought that those spayed in the side, were less liable to accidents than those spayed in the belly. I once had a heifer whose guts came out in consequence of the slipping of a knot. Had such a thing happened with one spayed in the side it would have been of no consequence, as the guts would not come out if half the stitches were taken out.

The heifer alluded to was thrown, and the bowels returned, and she recovered. When I first began to spay, (about ten years ago,) I sewed them very loose, according to the instructions I had received—but am now convinced that it is best to sew them moderately tight.

I have usually spayed from twenty to twenty-five a year, and my loss has been about one in a hundred.

I have never spayed milch cows with a view of keeping them to their milk, for this can be easily done by keeping the cow from the bull, and *always* milking all that can be got from the cow, and feeding her well.

The demand for blooded cattle is now getting so good, that I shall only spay the inferior heifers, whilst I find it more profitable to dispose of the best for breeders. Two winters ago, I had forty-five heifers, and selected twenty and kept them for breeders. The balance I spayed and sold this fall (then two years old past) for twenty eight dollars each.

I usually kept my heifers up a day without food before spaying, as it is much easier to spay them when empty than when full. In one case, where the heifer was very full, in opening her, I cut her paunch about half an inch. She got over the operation as well as they generally do. In sewing, I am very particular that the stitches should pass through the flesh inside (the Peritoneum) of the belly, and where the animal is very fat, it is best to sew them twice—first the inside skin, (the Peritoneum) and after cutting off the thread, (buckskin) sew the outside.

If you think their is any thing in the above that will interest your subscribers, you can use it.

SALUEL D MARTIN.

Agricultural Meeting.

At a meeting at the Machanic's Hall, on the 5th inst. held pursuant to adjournment, the subject of forming an AGRICULTURAL SOCIETY for this town and its environs, was duly considered and adopted, and a considerable number signed the Constitution of the SKANEATELES AGRICULTURAL AND HORTICULTURAL SOCIETY: whereupon the Society proceeded to elect its officers for the ensuing year. Amasa Sessions, President; David Hall and Chester Moses, Vice Presidents; S. P. Rhoades, Secretary; James C. Fuller, Corresponding Secretary; and Russell Frost, Treasurer.

The committee appointed at a previous meeting to take into consideration the utility of establishing regular Markets and Fairs, made their report, and the society unanimously agreed to establish a Monthly Market, and to hold a fair sometime in the Autumn.

The markets to be held on the last Saturday in each month, for the sale of all kinds of live stock, and agricultural produce. The first market will be held at the Baptist Meeting House, in the village of Skaneateles, on the last Saturday of this month, at 10 o'clock A. M. Yards will be provided by John Snook, for the safe keeping of Stock which may be exhibited for sale. Farmers in this and the adjoining towns are invited to bring on that day, any stock, produce, or manufactures which they may wish to dispose of, and farmers in this and the adjoining towns are respectfully invited to unite with this society.

S. PORTER RHOADES,
Recording Secretary.

Skaneateles, March 8, 1836.

SEED STORE, AGRICULTURAL REPOSITORY, &c.—We are gratified to learn that our enterprising fellow citizen, Mr. WILLIAM THOREURN, is about to erect on the property which he purchased last fall, at the corner of North Market-street and Maiden-Lane, a splendid AGRICULTURAL and HORTICULTURAL REPOSITORY. It is the intention of Mr. THORBURN, when his edifice is completed, to supply his various departments with all that is required by Florists, Horticulturists and Agriculturists. Mechanical Improvements and Implements of Husbandry will be all found in his Repository. Agricultural and Horticultural Books, Periodicals, &c. will be kept by Mr. T. This establishment will be not only very useful to the whole community, but creditable and ornamental to our city.—*Albany Evening Journal.*

SILK.—We were not aware that so much attention had been given to the culture of Silk in this County, until we were presented, a few days since, with a bundle of an hundred skeins of blue Silk lately manufactured by J. H. WRIGHT of New-Haven, who has been engaged in the business four years, and has three thousand trees already in a prosperous state.

The culture of Silk is a profitable employment, and one which cannot be overdone in this country for many years, and the soil of this County is well adapted to the growth of the Mulberry.—*Oswego Observer.*

WILLIAM ATKINSON,
REAL ESTATE BROKER,
17, *Exchange-street, Rochester.*

BUYS and sells Farms and City Property on commission, and attends to the collection of Mortgages.

☞ Several valuable Farms for sale.
February, 1836. feb 20f6m*

Robbins' Planting Machine.

WITH this Machine Corn, Beans, Peas, Broom Corn, Mangel Wurtzel, Turneps, Onions, and seeds of almost every description, can be planted with more system and correctness than can be done in the usual manner of planting with the hand and hoe. One man may easily plant five acres a day, placing the seeds any given distance apart, from two or more inches, and in rows two and a half feet apart.

Machines can be had by applying to REYNOLDS & BATEHAM, Rochester; C. N. BEMENT, Treasurer of the State Agricultural Society, Albany; BUSHROD BUCK, Lanesborough, Berkshire county, Mass.; and DANIEL T. BUCK, Lowville, Lewis county, agent and proprietor for making and vending said machines, at all of which places it is intended to keep a supply on hand.

Lowville, Nov. 24, 1835. nov 28-6m